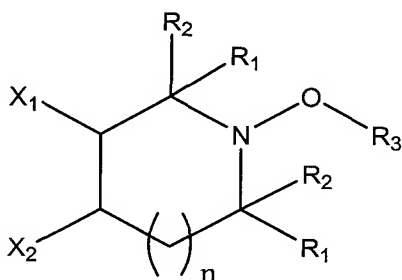


IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for the preparation of a block copolymer by means of radicalic polymerization, which comprises:

a) polymerizing a vinylaromatic monomer at a temperature higher than, or equal to, 120°C, in the presence of a radicalic initiating system, consisting of a compound having general formula (I):



wherein R₁ and R₂, the same or different, represent a methyl or ethyl radical, X₁ represents a hydrogen atom, X₂ represents a hydrogen atom or a hydroxyl, or X₁ and X₂, the same or different, represent a C₁-C₄ (iso)alkyl radical, or, they jointly form an aromatic ring, n is equal to zero or 1, and R₃ represents a radical selected from one of the following groups:

-C(CH₃)₂-CN,

-C(CH₃)₂-Ph, or

-CHCH₃Ph;

or R₃ is absent, as in that position there is an un-coupled electron, used in a mixture with radical generator compounds (G) selected from peroxides, peresters, percarbonates, or azobisdialkyldinitriles, and with molar ratios I/G lower than 4;

until a conversion of the monomer ranging from 5 to 99.9% is obtained;

b) feeding to the polymerization mixture of step (a), after obtaining the desired conversion, ~~a monomer deriving from (meth)acrylic acid~~ methacrylonitrile in such a quantity

that, at the end of the polymerization, the total weight of the block copolymer, M_w , is lower than 1,000,000, wherein step b) is carried out ~~operating~~ at the same operating temperature [[,]] and in the presence of the same initiating system as step a); and

c) recovering, at the end of the polymerization, the block copolymer thus obtained, wherein a precipitation and/or recovery step of a first polymeric block is absent between steps a) and b).

Claim 2 (Original): The process according to claim 1, wherein the R_3 group is $-\text{C}(\text{CH}_3)_2\text{-CN}$.

Claim 3 (Original): The process according to claim 1, wherein the R_3 group is $-\text{C}(\text{CH}_3)_2\text{-Ph}$.

Claim 4 (Original): The process according to claim 1, wherein the R_3 group is $-\text{CHCH}_3\text{Ph}$.

Claim 5 (Original): The process according to claim 1, wherein the R_3 group is absent.

Claim 6 (Previously Presented): The process according to claim 1, wherein the polymerization of both step (a) and step (b) is carried out at a temperature ranging from 120 to 150°C.

Claim 7 (Previously Presented): The process, according to claim 1, wherein the initiator having general formula (I) is present in concentrations ranging from 0.01 to 2% in moles with respect to the total moles of the monomers fed.

Claim 8 (Previously Presented): The process according to claim 1, wherein the initiator having general formula (I) is used with free radical generators (G), selected from dibenzoyl peroxide, dicumyl peroxide, or N,N'-azobis-(diisobutyronitrile); and with molar ratios I/G ranging from 1 to 3.

Claim 9 (Previously Presented): The process according to claim 1, wherein the polymerization of both steps (a) and (b) is carried out batchwise, in continuous or semi-continuous at a temperature higher than 120°C and at a pressure, which is such as to maintain the monomers in liquid phase.

Claim 10 (Previously Presented): The process according to claim 1, wherein in the radicalic initiating system, having general formula (I), X₁ and X₂ jointly form an aromatic ring, and n is equal to zero.

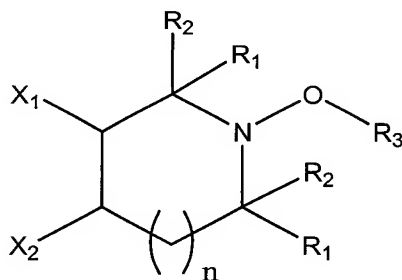
Claim 11 (Previously Presented): The process according to claim 10, wherein the initiator having general formula (I) is selected from:

- 1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;
- 1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole;
- 1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole;
- 1,1,3,3-tetramethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;
- 1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole; or
- 1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole.

Claim 12 (Canceled).

Claim 13 (New): A process for the preparation of a block copolymer by means of radicalic polymerization, which comprises:

a) polymerizing a vinylaromatic monomer at a temperature higher than, or equal to, 120°C, in the presence of a radicalic initiating system, consisting of a compound having general formula (I):



wherein R₁ and R₂, the same or different, represent a methyl or ethyl radical, X₁ represents a hydrogen atom, X₂ represents a hydrogen atom or a hydroxyl, or X₁ and X₂, the same or different, represent a C₁-C₄ (iso)alkyl radical, or, they jointly form an aromatic ring, n is equal to zero or 1, and R₃ represents a radical selected from one of the following groups:

-C(CH₃)₂-CN,

-C(CH₃)₂-Ph, or

-CHCH₃Ph;

or R₃ is absent, as in that position there is an un-coupled electron, used in a mixture with radical generator compounds (G) selected from peroxides, peresters, percarbonates, or azobisdiaryldinitriles, and with molar ratios I/G lower than 4;

until a conversion of the monomer ranging from 5 to 99.9% is obtained;

b) feeding to the polymerization mixture of step (a), after obtaining the desired conversion, a monomer deriving from (meth)acrylic acid in such a quantity that, at the end of the polymerization, the total weight of the block copolymer, Mw, is lower than 1,000,000,

wherein step b) is carried out at the same operating temperature and in the presence of the same initiating system as step a); and

c) recovering, at the end of the polymerization, the block copolymer thus obtained;

wherein a precipitation and/or recovery step of a first polymeric block is absent between steps a) and b), and at least one of the following conditions is satisfied in reference to formula (I):

the R_3 group is $-C(CH_3)_2-CN$;

the R_3 group is $-C(CH_3)_2-Ph$;

the R_3 group is $-CHCH_3Ph$;

X_1 and X_2 jointly form an aromatic ring, and n is equal to zero; and

the initiator is selected from

1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole; or

1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole.

Claim 14 (New): The process according to claim 13, wherein the R_3 group is $-C(CH_3)_2-CN$.

Claim 15 (New): The process according to claim 13, wherein the R_3 group is $-C(CH_3)_2-Ph$.

Claim 16 (New): The process according to claim 13, wherein the R_3 group is

-CHCH₃Ph.

Claim 17 (New): The process according to claim 13, wherein in the radicalic initiating system, having general formula (I), X₁ and X₂ jointly form an aromatic ring, and n is equal to zero.

Claim 18 (New): The process according to claim 17, wherein the initiator having general formula (I) is selected from:

1,1,3,3-tetraethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetraethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-cyanoprop-2-yl)-2,3-dihydro-1H-isoindole;

1,1,3,3-tetramethyl-2-(2-phenylprop-2-yl)-2,3-dihydro-1H-isoindole; or

1,1,3,3-tetramethyl-2-(2-phenylethyl)-2,3-dihydro-1H-isoindole.